ON THE EFFICACY OF THE EARNED INCOME TAX CREDIT: A PRELIMINARY REPORT FOR THE NASHVILLE WEALTH BUILDING ALLIANCE

A class project by Vanderbilt University Peabody College
HOD2780 Public Finance Class
Spring 2005

Draft Document - Not For Distribution Without Permission

Department of Leadership Policy and Organizations
230 Appleton Place – Peabody Box #514
Payne Hall Room #202C
Nashville, TN 37203-5721

PART IV

RECOMMENDATION:
AN ECONOMIC IMPACT ASSESSMENT OF THE EITC IN NASHVILLE

Michael Carr (Team Leader), John Haskell, Katherine Hilton,
Sean Kelley, Cori Raiken

The economic impact assessments of the Earned Income Tax Credit are crucial to the determination of whether or not the EITC is worthy of government support and funding. An economic impact assessment's purpose is to evaluate, both qualitatively and quantitatively, the benefits to industry that are associated with the project (EITC) and to compare those benefits to the cost of conducting the project. These assessments focus on the changes in financial and strategic variables within industrial organizations whose activities are directly affected by the EITC. Economic impact assessments are essential because they ensure accountability and program value; they also provide the necessary information to improve overall managerial efficiency and strategic planning.

The earliest of the reviewed economic impact assessments was conducted in 1998 by Timothy M. Smeeding and Katherin E. Ross of the Maxwell School for Policy Research at Syracuse University. Since then assessments have been performed in 27 cities nationwide, from Camden, NJ to Seattle, WA, and many cities in between. There is also a growing body of research that looks more widely at macroeconomic implications of the EITC and the nationwide spending patterns of its recipients. These assessments are limited in that they provide no information regarding the EITC's impact on stimulating the economy's growth. Proper economic impact assessments are essential because they guarantee the success or failure to the Earned Income Tax Credit, as they provide all critical information regarding who, when, where, and how these additional funds are being spent in the community.

What is an Economic Assessment?

The purpose of an Economic Impact Assessment is to evaluate, both qualitatively and quantitatively, the benefits and costs associated with the Earned Income Tax Credit (EITC). These assessments focus on the changes in financial and strategic variables within industrial organizations whose activities are directly affected by the EITC. The Economic Impact Assessment is conducted in order to ensure that the EITC performs and creates the expected externalities, as well as to provide information for improvement in managerial efficiency and strategic planning. Performing an EIA with regard to the EITC refund is crucial for establishing the credibility of forecasted impacts of the program in Nashville, Tennessee in order to gain support for the project from both private and public stakeholders.

The process for conducting an Economic Impact Assessment involves past research comparisons, strategic planning, and in-depth analysis of results and implications. In many cases, the first step is to identify the individual stakeholders in the project. Next, the type of project being researched must be pinpointed; in the case of the EITC, the project is "ongoing," signifying that future outputs and costs are unknown, but can be estimated through extrapolation techniques. The subsequent step is to create a historical overview of the project in which methods, findings, and past studies are included as a foundation for the initial reasoning for conducting an Economic Impact Assessment.

The second half of carrying out an Economic Impact Assessment involves formulating strategy specific to the EITC, selecting a method for utilization within that strategy, conducting the assessment, and interpreting the findings gathered from the assessment. In formulating a strategy, the direct and indirect costs, as well as quantifiable categories of economic impact benefits must be identified; such can include productivity, quality, and transactions costs. The benefit categories are dividedinto levels, with the first representing those industrial organizations benefiting from the EITC refund, and the second representing those individuals and/or organizations that benefit from the reuse of the funds received by the first level recipients. The method used to fulfill this strategy is cost-benefit analysis, which will determine if the benefits of the EITC program outweigh the costs.

The following pages report the preliminary EIA strategy utilized for the Nashville, Tennessee EITC program. All steps leading to the conducting of the assessments and analysis of findings are included, and the two final steps of the assessment are in the process of completion. For this report, comparative Economic Impact Assessments were evaluated, and a projected analysis of the soon-to-come results for Nashville is integrated based on research of comparable EITC-EIA outcomes.

MAJOR NATIONAL RESEARCH

A. Macroeconomic Implications for the EITC

Edwards, Ryan D. (2004). Macroeconomic Implications for the Earned Income Tax Credit. *National Tax Journal*, 57, 45-66.

Edwards (2004) studied the macroeconomic effects of annual aggregate EITC disbursements in the national economy. The shifting seasonality and growth of annual EITC payments from three billion in 1988 to thirty billion in 2000 (a fifteen percent annual rate since 1993) has allowed economists to pinpoint EITC-related stimulus in macroeconomic indicators. Edwards' research identifies an immediate and "large and robust" macroeconomic consumption response, with estimates of the marginal propensity to consume of EITC payments ranging between 0.4 and 1 and averaging 0.7. In other words, the average EITC-recipient in the U.S. immediately spends about 70% of their received check. EITC payments were found to stimulate durable and nondurable spending fairly equally, while there was mixed evidence regarding spending on services.

This EITC consumption rate outpaces the economy-wide marginal propensity to consume found by Campbell and Mankiw (1990), averaging 0.5 in a comparable quarter. It was also found that EITC payments produced a more significant macroeconomic consumption stimulus than personal income tax refunds. In line with other studies (i.e. Shapiro and Slemrod [2003]), Edwards estimated an MPC of just over 20% for the personal income tax refunds. These results suggest that the EITC is a powerful tool for fiscal stimulus because EITC recipients are disproportionately spenders rather than savers, spending their payments at a higher rate than the economy-wide marginal propensity to consume and personal income tax refunds marginal propensity to consume. As such, Edwards' concludes that the EITC is a more effective fiscal stimulant than broad-based tax returns.

B. EITC and Durable Goods

Barrow, L. and McGranahan, L. (1999). *The Earned Income Credit and Durable Goods Purchases*. Paper presented at the Joint Center for Poverty Research Conference, Evanston, IL.

Barrow and McGranahan (1999) established some important macroeconomic implications of EITC refunds in studying the choices and spending behavior of EITC recipients. Since 1979, EITC recipients have been eligible to spread a portion of their credit evenly across the calendar year. This provision, called the Advanced EITC, has experienced very low levels of participation; in 1996, Advanced EITC payments amounted to only 1 percent of returns. This overwhelming recipient preference for the lump-sum payment led Barrow and McGranahan to study recipient spending patterns in order to make sense of this apparent violation of behavioral economic theory.

The study looked at whether the lump-sum nature of EITC payments induced changes in normal spending patterns among recipients with a focus on any changes in the season patter of durable goods expenditures. It was hypothesized that the substantial size of the available lump-sum EITC refund check assists low-income consumers in purchasing big-ticket items. However, durable good purchases comprise a smaller portion of income expenditure from the less lumpy, more frequent payments from employers or other government assistance programs. This is supported by the fact that low-income individuals have limited access to credit and formal financial markets to accrue the lump sums necessary for larger purchases. For individuals with limited ability to store money safely, the lump-sum payment serves as a safe mechanism for savings to enable more substantial purchases.

It was found that the EITC refund induces increased levels of total spending (particularly on durable goods) during the tax-filing season. EITC households spent approximately four percent more during February, when most refunds are received, and between 10 and 12 percent more on durable goods. This supports the conjecture that the EITC facilitates the purchasing of big-ticket items by low-income families. At the same time these estimates suggest that recipients reduce expenditure somewhat since the average increase in expenditure is less than the average EITC refund amount. A low-end estimate has EITC families spending approximately one-third of their refund in February.

The study found these spending increases to be independent of macroeconomic trends and concludes that the increases in the total spending and durable goods expenditures of EITC recipients are due to the lump-sum refund. In comparison with non-recipients, EITC recipients have different seasonal spending patterns. Tests demonstrate that recipients consume more in February, relative to non-recipients, than in any other month. The other major EITC month, March, appears to have more typical spending patterns, though the coefficient is slightly higher than in other months.

C. Brookings Institute National Study

Berube, Alan, (2001*). A Local Ladder for the Working Poor: The Impact of the Earned Income Tax Credit in U.S. Metropolitan Areas.* The Brookings Institute EITC Series, pp. 1-25.

There are several key findings in the Brookings Institute study regarding economic impact assessments. Nationally, it was found that "most EITC dollars flowed to communities outside central cities." In most cases a majority of the EITC dollars tend to go to suburban residents (although a higher percentage of urban residents filed for claims). In the South, more low-income families work in the suburbs than in the northeast; therefore, data from Southern cities did match up with findings from other cities around the country. A general conclusion would state that EITC benefits far more people than solely urban residents; furthermore, EITC education is necessary to encourage filing and collection.

The table below compares urban versus suburban findings in a sample of cities:

		Central City		**Suburbs**	
City	**Reg.**	**% Filing**	**EITC Mil$**	**% Filing**	**EITC Mil$**
St. Louis, MO	MW	29.6	73	11.3	186
Indianapolis, IN	MW	16.4	89	9.8	59
Atlanta, GA	S	25.4	70	14.8	374
Louisville, KY	S	24.0	42	11.9	65
New Orleans, LA	S	36.0	128	20.0	131
Nashville, TN	**S**	**17.2**	**67**	**12.0**	**55**

As the national trend states, the southern states do have more low-income residents in the suburbs because a smaller percentage of suburban families are filing for the credit and more money is being allocated to their regions (understanding that many more people probably live in the suburbs than in the city, it still shows that EITC affects many more people than those "focused on").

Lastly, Nashville does not follow the nationwide trends. Overall, it seems as though less urban residents are filing for the EITC refund. This suggests that it is important to focus on city residents with EITC education programs in order to have the biggest impact on Nashville's economy.

CITY-LEVEL STUDIES

A. CHICAGO – EITC; Consumption, Savings, and Debt

Smeeding, Timothy R. (1999). *The Economic Impact of the Earned Income Tax Credit (EITC): Consumption, Savings, and Debt.* Center for Policy Research, Maxwell School of Citizenship and Public Affairs Syracuse University

This study was the first economic analysis of its kind with regard to the Earned Income Tax Credit, performed in 1998, and thus many recommendations for improvement in later analyses were given. However, this article supports use of the EITC and concludes that it appears to be the "most effective federal program for leading low-income families on a path toward true economic independence." Researchers analyzed where Chicago's working, low-income families spent their lump-sum tax return from the EITC. The two aspects observed were the use of the refund for "making ends meet"—including paying rent, utility bills, food/shelter/clothing expenses—or to "improve social mobility"—including saving, moving , investments, tuition, and car payments. This study found that seventy-five to eighty percent of the EITC recipients would utilize the refund for making ends meet, and it was also proven that a large majority of the recipients would not have been able to pay for/pay off their top priority financial need without the EITC refund. These researchers suggest that EITC economic impact assessments continue to be performed annually so that the effects of the EITC can be justified to government spending committees. Also, they suggest an expansion of the EITC policy to differentiate between families with varying numbers of children, as more mouths to feed place added pressure on income at an n-fold increase.

B. CHICAGO – Economic Impact Study
Smeeding, T., Ross, K., O'Connor, M. *The EITC: Expectation, Knowledge, Use, and Economic and Social Mobility*. National Tax Journal. December 2000; 53, 4; p. 1187

This study asserts that "the EITC presents a source of funds for human capital investment: tuition, books, and both as an alternative to student loans and as a source of payment to these loans. In effect, a $1,000 to $2,000 EITC might be seen as a good substitute for a tuition voucher to schools, especially in cities where schools are sub par." These funds could potentially reduce the amount of money given for education and could improve the overall quality of life for children of recipients.

This study also divided the EITC into two separate categories: ***making ends meet*** included payment of regular bills including rent, utilities, food, groceries, clothing, and household expenses. The other category is ***social mobility***, which includes all forms of debt repayment, savings, and other expenditures. These expenses also included payment for credit cards, automobiles, home improvements, tuition, medical bills, and moving expenses. The researchers ranked the categories in terms of importance according to the beneficiaries. Bill-paying was the single most important use of the EITC for nearly half of all beneficiaries and making purchases ranked second. Approximately eighty percent of respondents said they would use the EITC to pay a bill or make a purchase of some commodity. Half of all respondents said they would save some or all of their EITC check. Sixteen percent of the sample stated they would use the funds to pay for tuition and twenty-two percent would make car-related purchases. Another finding was that one half of all beneficiaries have social mobility related prospects for the EITC refund.

This study examined differences in EITC spending patterns based on race and social factors. For example, "single parenting, being Hispanic, expecting a refund, and having access to credit all increase the likelihood of having a social mobility use for the refund." Furthermore, "single parents are twice as likely as married parents to use the refund for improving social mobility. Hispanics are 2.4 times more likely than Whites to use the funds for improving social mobility. Recipients who expected their refund are more than 2.2 times more likely to have social mobility use for a portion of their refund than recipients who do not expect a refund." The study also concluded that for each $1,000 of EITC credit, the recipient is 1.24 times more likely to use the funds for social mobility.

C. SAN ANTONIO
"The City of San Antonio/Annie E. Casey Foundation. Increased Participation in the EITC in San Antonio. p. 1-14"

The findings from this San Antonio study support the proposal for increased EITC education. In 1999, twenty-five percent of eligible households did not claim the credit. Therefore, it is believed that additional education would dramatically increase the amount of benefit from the tax credit and thus the direct and indirect effects would also positively change. If the balance of eligible residents claimed their funds, the estimated economic impact would be as follows (in millions):

Direct Spending	Total Economic Activity	Value Added	Labor Income
$37.3	$58.9	$37.2	$21.7

Furthermore, one-thousand permanent jobs would be created. Other benefits of increased EITC distribution include the sales, property, as well as other revenues that the city government would gain as a result of increased spending. In 1999, the city of San Antonio would have received an additional $715,500 if the unclaimed credits were redeemed. The increase in permanent jobs, spending, and fiscal benefits would significantly help the local economy, individuals, and families.

D. MILWAUKEE
Romich, J. and Weisner, T. (2000). *How Families Use and View the EITC: Advance Payment versus Lump Sum Delivery*. Manuscript submitted for publication.

Romich and Weisner (2000) collected and analyzed ethnographic data on 42 families' perceptions and uses of the EITC, including the decision to use the lump sum or advanced payment form. The study collected intensive qualitative data by interviewing urban low-income families in Milwaukee, Wisconsin over the course of two years and two EITC refund periods. The study was undertaken in response to questions about whether EITC refunds were being used as intended by policymakers. In an event publicizing the administration's role in expanding the EITC in 1993, President Clinton celebrated the EITC's objectives, "[it is] not about more government or social workers, or more services. It's about more groceries and a car, more school clothes for kids and more encouragement and hope to keep doing the right thing." A primary question of this study: Are low-income families purchasing the projected groceries, cars and school clothes? For this study, we will review the findings using some of the qualitative data collected, since such quotes and/or explanations can be more instructive than the numbers (though limited quantitative data is also included).

Expenditures were compared in various couples: (1) durable vs. non-durable goods and (2) a more politically-apt comparison of child-specific vs. non-child purchases. There is also data on garnishments and savings.

This study's qualitative data on EITC expenditures very much supports the quantitative data of Barrow and McGranahan (1999). Following the conjecture of Barrow and McGranahan, this study predicted that people were likely to spend current income on current consumption (generally non-durable goods), while wealth or lump sum income would be saved or spent on larger-ticket items (durable goods). It was observed that durable good purchases were much more frequent with lump-sum EITC checks than non-durable expenditures. Furniture was found to be the most common post-tax check purchase, with sixty percent of the families buying couches, tables, beds, or other furniture. Appliances were another necessary asset because inexpensive Milwaukee apartments generally rent without stoves, refrigerators, washers or dryers. Entertainment equipment such as televisions, radios, and videos were another popular expenditure; twenty-nine percent of the sampled families reported such purchases. Transportation and housing are the next two most common uses of the refund; just over one-quarter of the sample having used or planned to use the credit on a car (included buying cars outright, making a substantial down payment or repairing current cars).

A second comparison looked at the prevalence of child-specific purchases over non-child purchases. Two-thirds of the parents in the sample cite expenditures on children as a top priority. Among the eight families who did not mention buying items for children, four were using the check as a lump sum down payment on a house or a car. Most child-oriented expenditures were on non-durables. Clothes were the most commonly cited child-specific purchase. As the mother of two children (one in preschool and one in kindergarten) explained:

When my taxes come… I'll take the kids shopping because my kids really need to go shopping, especially [my older son]. He has no clothes. He needs clothes… Once I get the money, you know send in all the papers – my W2 thing. I [am] most definitely going shopping for my son. Go to Wal-Mart and Kmart and just stock up.

The researchers continue, "For this mother, the lump sum payment enabled the purchase of a child's wardrobe—a full set of socks, underwear and school uniforms—rather than a few items at a time." Other child-specific uses are to pay private school tuition (three instances) and to establish savings accounts in a child's name (two instances). People also take joy in giving their kids "fun money" or to take the family out for a special treat.

Not to be overlooked are those EITC families that do not have their income taxes refunded. Six households (fourteen percent) had their EITC garnished automatically in one or both years due to outstanding debts incurred in government-administered programs such as student loans, back taxes, or convictions for welfare fraud. In looking at savings, the study found that most families spent their entire EITC refund within two months of receiving the check; however, thirty-two percent had a portion of their EITC refund two or more months after receiving the check. When asked why this money was being saved, families either had large saving goals or were keeping the money for future emergencies. This savings behavior is generally in-line with the findings of Barrow and McGranahan (1999), who found EITC recipients have some preference for spreading out their expenditures, only one-third of recipients spent the entire check in February.

NASHVILLE ANALYSIS

Previous impact studies for the EITC can be categorized into three groups: the macroeconomic behavioral impact study, the microeconomic or household behavioral impact study, and the regional/metropolitan economic impact assessment. Each of the reviewed studies has their limitations in describing economic stimulus that results from low-income household expenditures from EITC disbursements. However, we will propose taking elements of the behavioral impact methodologies and combining them with the methodology for assessing regional economic impact in order to quantify EITC's economic stimulus to Nashville, as well as the potential economic stimulus for Nashville that is not yet realized.

The macroeconomic behavioral impact assessments focus on broad, nationwide changes in EITC-recipient spending patterns as they are reflected in changing macro indicators. Yes, these studies assess an economic impact per se but tell us nothing about the EITC's impact as it relates to stimulating economic activity. The microeconomic or household behavioral impact studies use more of a sociological framework to assess the micro-level spending decisions of EITC recipients. These studies employ survey research to gather more complete information on how recipients spend their EITC checks. While these assessments focus on one city (i.e. Chicago or Milwaukee), the conclusions are not typically meant to be city-specific. Rather, these studies are concerned with recipient spending behavior with the object of being able to generalize the results to all EITC recipients (operating under the assumption that one city's EITC population won't have systematically different spending patterns than another city's). These micro-level studies provide more specific data than the macro-level studies on recipient spending behavior, though their data may also not be representative of the national recipient population. Again, this type of assessment looks at behavior and not at economic stimulus; however, data on specific uses of EITC checks is one step closer to what we would want to include in our Nashville study.

Regional/metropolitan economic impact assessments for the EITC have been performed in two cities: San Antonio and Baltimore. Both studies quantify EITC-related stimulus to their respective metropolitan study areas using a regional input-output modeling system called IMPLAN. Input-output accounting describes commodity flows from producers to intermediate and final consumers. It assesses the "ripple-effect" of direct expenditures into a local economy from a source such as EITC disbursements. For example, a family uses their EITC check to purchase a new washer and dryer at a local retail outlet. The direct effect is the payment made to the retailer but the retailer will have to replace his inventory by purchasing additional washers and dryers. These appliances might be shipped using a local carrier or even manufactured in or with parts from the local economy. If business is really good, the retailer and downstream industries may have to hire more employees, who in turn receive expendable income that enters the local economy. These downstream expenditures to meet the increased demand for finished goods are the ripple effects or indirect economic stimuli. To the extent that local expenditures stimulate local industrial demand is reflected in a set of multipliers that describes this relationship for each and every local industry. The IMPLAN modeling system can thus use Davidson County multipliers to calculate indirect local economic stimulus in terms of increased economic output, value-added, labor income, and employment, among other quantifiers.

Direct expenditures must be determined by the researcher and entered into the IMPLAN model. The potential impact of unclaimed EITC funds can also be found using the same models with *expected* direct expenditure data. Either way, the quality of the data on these final-use purchases, which drive the model, will determine its overall accuracy and explanatory power. If the dollar amount of EITC-related expenditure to each economic sector is inaccurate, the entire model's output will also be inaccurate. This has been the critical weakness of the two previously performed IMPLAN studies for the EITC. Both the Baltimore and San Antonio studies assume that EITC dollars will be spent in the same ratios to the same sectors as general personal consumption expenditures of lower income individuals (found in data from the Bureau of Labor Statistics Consumer Expenditure Survey). The macro and microeconomic expenditure behavior studies we reviewed find different patterns from general low-income expenditure, such as an in increase in the purchase of big-ticket items or durable goods. These differing expenditure patterns will produce different results for economic impact. As such, a proper EITC impact assessment should use EITC-specific expenditure patterns to drive the IMPLAN model. Further, both studies assumed a certain portion (for Baltimore, it was two-thirds) of the tax credit was spent outside of the region, a statistic that should be better captured using a survey methodology.

One focus of our research has been to outline a better methodology for assessing the local economic stimulus from local EITC disbursements; ultimately, we would like to develop and implement this methodology in Nashville during the second phase of NWBA-sponsored research. We feel the ideal methodology would include IMPLAN modeling to assess indirect impacts, which is driven by survey research that assesses the EITC's direct impacts. We already know the amount of EITC money that flows into Nashville annually, but we do not very well understand where it goes and in what ratios it goes to places on the economic landscape. Previous behavioral studies provide data, which might be extrapolated for use in an IMPLAN model but in general do not fit the model well. If resources for the second phase of NWBA research are thin, we suggest deriving direct expenditure ratios from the previous microeconomic EITC research or the Consumer Expenditure Survey, multiplying these ratios by a particular year's EITC disbursements to Nashville, and plugging the resulting expenditures into the IMPLAN model.

Ideally, the NWBA should conduct their own microeconomic survey research to capture expenditure ratios that can be more readily utilized by an IMPLAN model and lead to the most accurate and credible results. The trick is to construct survey questions in such a way that expenditures can be identified in terms of the sectoring scheme for the IMPLAN model, as well as separating local from or non-locally expenditures (including savings). Expenditure data must also be recalculated to remove the retail markup (to reflect producer prices). Other issues intrinsic to economic impact surveys will have to be addressed and built in to our survey instruments. Some issues, like selection bias, are relevant to all survey research but others, like credit *fungibility*, are specifically problematic for survey-based economic impact assessments. Building survey instruments and selecting a sample to meet all of these data and quality requirements will take considerable expertise and is beyond the scope of this first phase of research. However, if such a meshing of survey and IMPLAN modeling impact methodologies can be developed and implemented, it could be replicated for cities across the United States and would be a major breakthrough in EITC research.

According to the Brookings Institute, for all of Nashville:

2002 Total Federal Returns	2002 Total EITC Returns	2002 Total Amount of EITC Refunds	2002 # EITC Filded w/RAL	% EITC
270,753	48,985	82,580	23,249	18%